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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,534	08/26/2003	Anthony Dip	240579US6YA	2715

22850 7590 12/02/2005

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EXAMINER

MALDONADO, JULIO J

ART UNIT PAPER NUMBER

2823

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/647,534

Applicant(s)

DIP ET AL.

Examiner

Julio J. Maldonado

Art Unit

2823

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 26 August 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☒ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

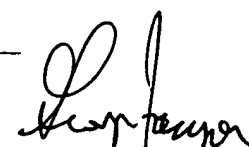
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: none.  
Claim(s) objected to: none.  
Claim(s) rejected: 1,2,4-12 and 17-20.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

  
George Fourson  
Primary Examiner

Continuation of 3. NOTE: The amendment filed 11/17/2005 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because the proposed amendment raises new issues that would require further consideration and/or search. The amended independent claims now add the limitation "...wherein at least one of the etching steps comprises a plasma etch process...", where there was no mention within the claims of this limitation. The amendment raises new issues into the prosecution of the instant application and would thus provide grounds for a new search and further consideration.

The newly added claims 21-23 raises new issues that would require further consideration and/or search.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 11/17/2005 have been fully considered but they are not persuasive.

Applicants argue, "...Claim 1 also recites monitoring the surface region of the substrate and repeatedly growing an additional ultra thin oxide layer to consume additional defects and etching the additional oxide layer to remove the consumed additional defects based on the monitoring of the surface region. The outstanding Official Action acknowledges that the cited references to Gonzalez et al. and Pai et al. do not disclose this monitoring step, but concludes that it is inherent that there has to be an inspection step to detect the level of contaminants on the substrate in order to continue or stop the growing of the etching steps. However, it is settled law that "to establish inherency, the extrinsic evidence 'must make clear' that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill". The mere fact that a certain thing may result from a given set of circumstances is not sufficient. While the cited references to Gonzalez et al. and Pai et al. disclose that alternating oxide growth and oxide etch steps are performed to remove contaminants, there is nothing in these cited references to indicate that in situ monitoring is performed at the substrate surface in order to determine a stopping point for the alternating processes. For example, the stopping point for the alternating process may be derived from historical data or other process consideration other than actual monitoring of the substrate surface. Therefore, the claimed monitoring step in Claim 1 is not inherent in the cited references. This provides an additional basis for the patentability of Claim 1..."

In response to this argument, Gonzalez et al. teach a method to clean a substrate, wherein thermal oxidation and etching steps are repeated as many times as necessary (column 4, lines 30 - 39). In order to clean a substrate to the minimum of contaminants required, it is required to know the level of contaminants before and after said oxidation and etching steps. Therefore there has to be inspection (i.e., monitoring) steps in order to determine the level of contaminants. Therefore, there is clear evidence that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill in the art. It is acknowledged that "the stopping point for the alternating process may be derived from historical data" as argued by the Applicants. However, at some point this "historical data" was obtained on experimental data on test substrates and since the claims are open to at least encompass these wafers, the rejection is deemed to be proper.